

ABSTRACT

**METHOD AND APPARATUS FOR CIRCUIT COMPLETION
THROUGH THE USE OF BALL BONDS OR OTHER CONNECTIONS
DURING THE FORMATION OF A SEMICONDUCTOR DEVICE**

A method used to form a semiconductor device comprises providing first and second circuit portions having first and second pad portions respectively. The second circuit portion is electrically isolated from the first circuit portion. The first and second pad portions are then electrically connected, for example with a ball bond or a wire bond, to electrically couple the first and second circuit portions. In various embodiments the semiconductor device will not function until the pad portions are electrically coupled, and in other embodiments the functionality of the device may be selectively controlled by connecting selected pad portions from a plurality of pad portions. Isolating the first and second circuit portions allows electrical operations such as antifuse programming to be carried out without adversely affecting related circuits. Once electrical operations are completed, the isolated circuit portions are electrically coupled to provide a complete circuit. Various inventive embodiments and implementations are described.

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